

JOURNAL BOX

EDITORIAL.

However hard we may all try, there always seems to be that unattainable goal, that carrot in front of our nose, that keeps leading us on.

I had resolved to try and get this year's Journals out near the right time; the end of the first month of issue. At the rate I am progressing, with the help of our typist, Dot, our publisher, Maurie, and our printers, it looks like we might achieve this goal somewhere about the Sept./ Oct. Journal.

However, your help is needed in keeping up the supply of articles and other items that must reach us by our deadlines.

No matter how good our intentions are, we cannot produce Journal without your help and your participation. For those who do not possess a copy of Journal 84, Maurie is working on a timetable on how Journal is produced. This will probably appear soon after I send him my contribution.

My contribution will be worked out in that "spare" time that we all enjoy. If you manage to keep me busy, then the date will be put back. Seriously though, we do need your participation, to keep this publication of ours alive.

ON THE COVER.

2014 works a goods train on the HO layout of the Hurstville Model Railway Club at the 1974 AMRA Sydney Exhibition. 2014, built using Prototype 19 class parts by E.S. Davies, won the 1973 AMRA Loco Conversion Competition.

Photo by A. Templeman.

Volume 26

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PRESIDENT'S CORNER



PRESIDENT'S REPORT 1976.

I would like to take this opportunity to present to you my Presidential report for the past year.

The Association still seems to be holding its own as far as membership goes. Although we had a rise in fees and had to restrict the number of Journals to four, there was only a drop of thirteen members overall. At the end of our financial year in 1975 we had 869 financial members, and in 1976 we finished with 856. On this score it is the first time since the C.O.M. has been in Sydney that membership figures have shown a drop, and it is a far cry from the total membership in 1969 which was only 341. To illustrate the climb here are the figures for the past eight years. 1969 - 341; 1970 - 475; 1971 - 537; 1972 - 629; 1973 - 753; 1974 - 830; 1975 - 869; 1976 - 856.

Keith Wilcox rejoined the C.O.M. and took on the unenviable task of Federal Treasurer. My thanks to Keith for filling the gap left by Keith Robinson's retirement last year.

The coming year will see us back to six copies of Journal, and we hope better communication and interest will be encouraged. We have, among our membership, some very knowledgeable modellers, whom I would hope could impart some of their experience to our Junior members. If we want A.M.R.A. to go on to better and greater things, any senior members willing to disclose some of their knowledge and experience to our younger members would be assisting to this end. The junior members who are fostered now will be the senior members in the years to come.

There is a small minority within the Association that carry the work load.

It is a thankless job, and very unrewarding for those people who give of their time. There seems to be a misconception that Office Bearers are on a very high "salary" instead of doing their respective jobs for the betterment of the Association. It is therefore very gratifying when someone says "thank you" to them.

The C.O.M. would like to extend our appreciation for the work of the Editor, Publishing and Advertising Committees, State Presidents and their respective Committees, in furthering the name and good image of A.M.R.A.

I would like to close this report by extending my personal thanks to all the members of the retiring Committee for their support over the past year. It is a well known fact that without the support and attention to duty to matters concerning the well being and running of the Association by the committee members, the President would be in real trouble.

John Dunn.

MERITORIOUS AWARDS.

Ivo Bunker	Ken Down
Bob Gorrell	David Ellis
Alan Dowel	Arthur Robinson
Stephen Suggitt	Bruce Lovett
Rex Little	Eric Doherty
Norm Read	June Larmour
Jack Treseder	Fyfe Thorpe
Mal Baker	Eric Lyon
John Sneddon	John Skilton
John Dunn	Keith Robinson
Graham Larmour	

THE SECRETARY'S DESK



SECRETARY'S DESK.

Well here we are heading well into 1977, with a greater range of models from overseas to choose from, but like everything else feeling the effects of inflation. On the Australian scene, things are still moving, with some very good kits available, mainly NSW prototypes. All this means well for the hobby.

What about the scratch builders, are they a dying race? From the scarcity of entries in this year's competitions I am inclined to think that they are. Some few years ago we would have 20 or so models entered in each of the various categories, but now we have dropped to a handfull in each, although I must say that the quality has not fallen.

Think about it for next year, and get started soon.

The COM is pleased to announce that the following members received the Meritorious Award in 1976, for sustained efforts on behalf of the Association and their relative branches:

Fyfe Thorpe	Victoria
Eric Lyon	Queensland
John Skilton	N.S.W.
Keith Robinson	N.S.W.

Most members who have given of their time and effort over a number of years have done so without any thought of "glory" and this award is just a way of saying thank you for what you have contributed to the Association. Without such members we would fold up.

Despite the financial state of the nation, membership did not drop as much as might have been expected. This is a good sign, and I hope that the return to bi-monthly issues of Journal will

also bring to light some new contributors to its columns. There are so many ways that members can contribute.

I expect that exhibitions will be a central feature of Branch planning again this year, the 1976 ones all being a success. A theme to work on is presentation. A layout need not be complete, but if the stand has a touch of professionalism about it and not the appearance of a collection from a scrap heap, it does create a better impression with the cash customers. This in turn reflects in the box office results, and no doubt that is what it is all about.

Norm Read.
Federal Secretary

Help Wanted!

Have you changed your address since the publication of the last membership list? You have!

Are you still wondering why you are not receiving your copies of Journal?

Then sit right down and write a change of address notice to the Federal Registrar. Her address? - Look under Credits in Journal Box.

It is not enough to sidle up to some poor overworked Committee man at a branch meeting, tell him of your change of address, and expect him to write your letter for you. Please help us to get your Journal to you on time.

THE ST. ERICS MODEL RAILWAY SYSTEM

- DEVELOPING IDEAS

By Eric G. Watson.

Quite frequently I am asked how and where I get my ideas. Somehow I have never been able to work out what use this information is to anyone.

There is no guarantee that if two people were given the same book or article, or were in the same place, both would come up with an idea. Perhaps the most outstanding example of this is railway employees who never think of using ideas they see every day on their layouts. In fact some would go as far as to say it is impossible to do so.

Model railway ideas are all around us - on the local railway line, in books and magazines, in newspapers, in the town you live in, perhaps in your street or home, at clubs, exhibitions, shops, in conversations, or on other peoples' layouts.

The major problem as I see it is not a shortage of ideas, but a lack of real thought on how to develop them so that they can be used on our layouts.

How we do this depends on a number of things, mainly experience, ability and imagination. Say for example that a Hotel-Motel was called for. Some might purchase a suitable kit and make it up. Some might find no suitable kit available and purchase a railway station kit and convert it to the Hotel Motel. This is quite a simple exercise if you use a bit of imagination.

One of the main sources of failure is people with the ability of make up a kit trying to freelance or finescale. Then they get into all sorts of strife decide "it's too hard" and "I can't do it" and give up - a wise move. They get discouraged, and after a few failures, and perhaps a lot of criticism from others, will not try anything.

With a bit more thought, and doing things on the level of their capability, they could be quite successful. This does not mean that we have to stay at that level. Success leads to confidence, so why not do the things you can, while setting up a programme to learn to do the things you would like to do?

It is hoped that readers have long since passed the state of expecting a writer to cover every possibility in an article. If not the following might provide some help. Take, for example, an article I am planning. This could have been done using the Hotel-Motel from my previous layout. The response from some would be that it is "no good, there is nothing in Journal for me," because it would not fit on their layout. So it would not fit on my layout either - so I re-arranged the landscaping.

Perhaps they do not want a Hotel-Motel, so the article is no good, perhaps they want a Head Office-Warehouse building. Yet in the article there are three ideas;

1. The idea used for the Hotel-Motel.
2. The idea of converting kits to other uses.
3. The idea of using railway stations for other purposes.

So there is a possibility of getting a suitable station building and converting it to a Head Office-Warehouse. I have used three different ones for this purpose. Looking over the 21 structures on my layout so far, I found:

- 2 doubtful - haven't got around to them yet,
- 2 used as per catalogue, but altered a bit.
- 17 not used for catalogue purposes.

At the moment final plans have not been prepared for the remainder of the layout, but depending on which of three plans I choose, up to 20 more buildings could be used for purposes not shown in the catalogues. In the next article we will see how these ideas can be developed.

Rule 1. In developing an idea we must consider "how I can develop this

idea so that I can have it on my layout."

As seen above this might, according to our ability, be anything from a fine scale model to a kit we have used our imagination to convert. It is not necessary for the idea to be much like its original form, and we will look at this in the next article.



5414 shunting St. Leonards Goods Yard — October 1965.

Photo by Kevin Brown.

Sir Greeley Dimley's Design Book

PART 2

By Anglethorpe Dickering, F.S.R.C.S.*

Reprinted with permission from the British Railway Modellers of North America Journal.

The first design Dimley created for his new company was an 0-4-0 tank engine for use at their wharves at Plunge Harbour. Dorset. This locomotive was equipped with an expansive boiler which was designed to keep the boiler banks properly in place as well as costing a packet. Due to this feature this type of engine was familiarly known as the Packet Tank.

This engine's duties were mainly confined to hauling tank wagons from the wharves to the nearby Bland Treacle Mine and return. It may be said that this particular locomotive came to a rather sticky end. It was in August 1862 that "Daisy", as the first had been named, was on a return trip to Plunge when disaster struck. On the 1 in 5 down gradient near the harbour, the tank car immediately behind the engine suddenly suffered a total collapse of its cardboard buffer beam and ran full tilt into the coal bunker with such force that the tank seams opened and let loose a veritable torrent of Dorset treacle. Driver Mopp was unaware of the situation until Fireman Postalweights complained that lumps of coal were sticking to his shovel.

No sooner had he spoken than they were engulfed in a flood of goo pouring in from the bunker. The two crewmen, fearing that they were being attacked by a deadly unknown source abandoned the footplate in a flash.

Daisy continued her way into the harbour and onto the wharf. Yard men jumped out of the way when they realised that no one inside the cab was following shunting instructions. Daisy

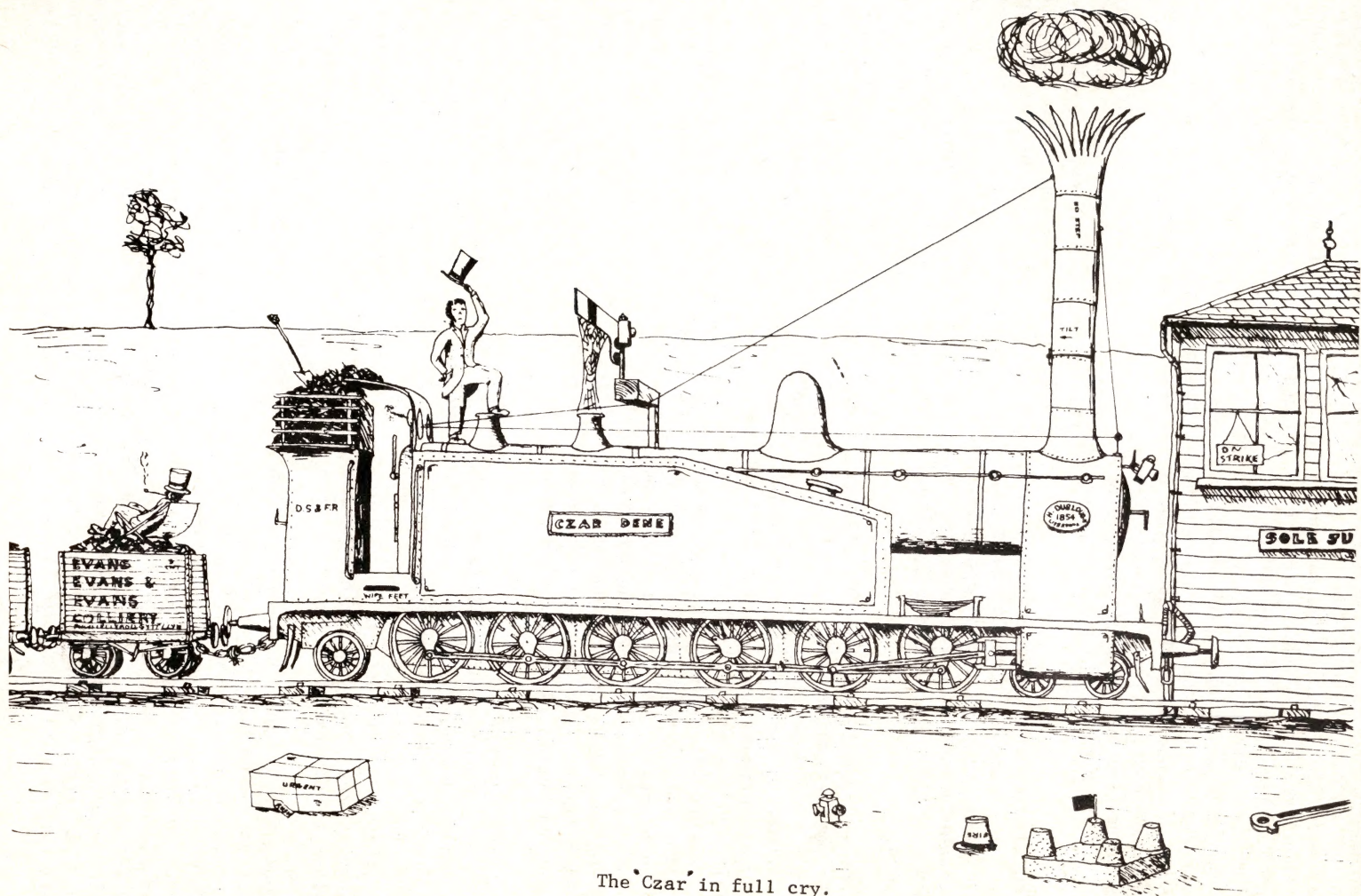
proceeded through the dock facility and unceremoniously chugged off the end of the pier into 6 fathoms of water, taking with her 19 tank cars of golden syrup, a loss of three weeks profit for the Bland concern.

It was soon realised that the locomotive was pre-nationalisation and for a while it was believed to have been part of a secret wartime plan to fool the Germans into thinking that the British were about to invade France under water.

While all this was going on photographs of the now retrieved Daisy reached the London daily papers and eagle-eyed Sqd.Ldr.Prang, Ret. of Thornhole, Berks, (who has a monumental collection of Lurch, Meander & Skreach material housed in 3 barns) immediately recognised the long lost Daisy for what it was and promptly hopped into his boat and feverishly punted to the scene.

He was alas, beaten to the punch by a local market gardener, Mr. Henty. Flit, who quickly offered the municipal council 39/6 for the remains and removed it to his home where Daisy now resides in the guise of a hothouse for Mr. Flit's hybrid geranium diodes.

Several other examples of the Packet class were built and received names. Most noticeable was No. 2002 which was originally named "Sceptic", but due to an illiterate yob in the foundry the plate came out as "Septic". No one noticed the difference and officials on various stations were often miffed as hoots of laughter arose from the travelling public when the Septic Tank wheezed into the station.



The 'Czar' in full cry.

Daisy remained forgotten in her watery grave for over a century until 1964 when Mr. Fred Tode, manager of Plunge Harbour Facility, was trying out the municipal dredge off the end of the pier when a loud clonk was felt topside. A diver was sent down to investigate, and soon returned with the news that a barnacle encrusted steam locomotive was lying in mud up to its footplate. (The cardboard tank car had long since disintegrated).

The news of this startling find was soon relayed and British Railways went into a great flap searching old registers, schedules and rosters, trying to ascertain what engine had disappeared and when.

Another example was 2037 "Sir Lancelot Lampwycke" which achieved an unprecedented record in the annals of railway history by becoming the engine which for 32 consecutive years headed the annual picnic special for the well known firm of Scroggins & Shotwire, makers of precision locks and bathmats, (by special appointment to King's Lynn and Prince's Risborough). During World War two, 2037 was taken over by the Ministry of Austerity and used on the Clagwood-Erthington branch line as a flak post.

Faster and Faster.

Dimley's directors were pleased with his initial design, and subsequently gave him free reign in design matters (unlike the brass of the D.S. & F.R., who after the Czar incident forced him to spend three years designing the new dripless fire buckets for their station platforms).

Young Greeley now, therefore, turned his attention to the express locomotive; the prestige machine which hauled the big name trains over the company metals. He decided on a radical departure from his predecessors and designed instead an 0-6-0 saddle tank. There were several novel features incorporated in the design, the least of which was the tank itself which was made of leather.

This was built by a proper sadler since no one in the company's works had successfully stiched steel tanks together previously. The design also used a Cornish boiler and with Greeley's usual penchant for the economics in mind, designed the unit to be heated by burning Cornish pasties in the firebox.

This proved to be a great shot in the arm for the Duchy, and the Cornish being the enthusiastic people they are, dropped everything else and started manufacturing pasties for the Lurch by the ton. As more of this class entered service the demand exceeded the supply to the point where Dimley designed a machine for use in the Dincaster works in which pasties could be moulded in one fifth of the time! This did wonders for the Company, but nothing for the Cornish, who closed all the pastry works and built broad gauge railways in retaliation.

This class of engine was, for some reason, named the Dutch Class and the first to enter service was No.999, "Cheeseborough Pond" in March 1867, and headed the line's crack express, "The Haggisman". This graceful locomotive, finished in purple and khaki, continued to set new times on the runs from London's Blackmonks Station to Leeds. These times were closely observed by the rival London, Nuneaton & Everton Railway. Their top brass introduced a competitive engine to win back lost customers on their crack northern express "The Flying Kilt". Similar to Sir Greeley's design, it was, but it possessed a bigger boiler, bigger wheels, bigger buffers, bigger drivers, was finished in 8 shades of green and christened the Pilchard Class.

Several others of this famed class are worthy of note. "Whytehall" No. 1212 for many years headed the Isle of Thanet Express until one day in 1872 when it met with an untimely accident. On April 1st of that year it was approaching Blackmonks with the empty returns when driver Oughtful upon closing the

regulator found the wretched thing come off in his hands. (It is apparent from this historic record that Dimley was still having his share of problems.) Fireman Hinesight, being of a noble and gallant breed of men, realising the dire peril they were in, immediately opened the firebox door and valiantly tried to put out the fire by pouring in the contents of his thermos flask. He had however, overlooked the fact that his good wife had, as usual, spiked his tea with something more substantial and the flames instead of dying, leapt out of the firebox door. Oughtful and his mate had no alternative and abandoned the footplate as No. 1212 roared into the station at 6 miles per hour.

"Whytehall" ran through the station, which was unfortunately, a terminus and the locomotive eventually encountered the buffer stop marking the end of the line. This being made up of laminated porridge tins, could not stop a runaway engine and promptly collapsed under the force. The chassis of the locomotive was arrested by the platform end, but the boiler continued on its own through the wall of the station cafe. Here it landed wheezing and gasping.

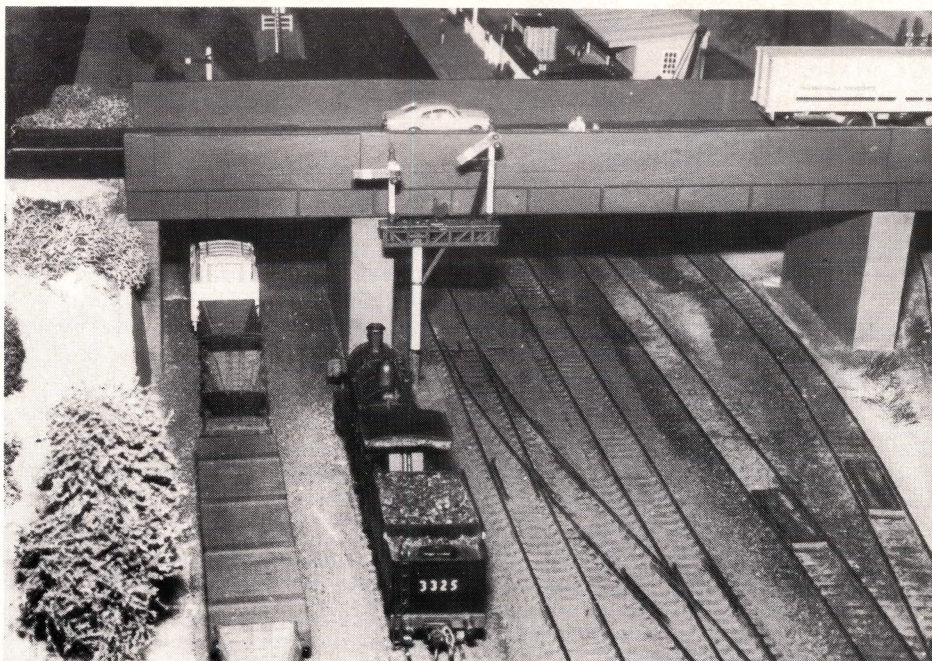
By one of those strange twists of irony, seconds after the boiler landed, in through the door walked Miss Mabel Grymme, to start the first morning cafe shift. It transpires that Mabel had been complaining to the brass, for over a month, about the inadequate size of the tea urn and upon espying the steaming boiler thought that her wishes had been finally answered. She then opened the smokebox door and shovelled in 8 pounds of Typhoon tea and has for the last 78 years kept the customers happy. The other parts of No. 1212 were broken upon into small pieces and used for executive hatracks.

Another example of this class was No. 1295 "Conundrum" which spent many years on Dincaster shed where it frequently headed "The Rampant Yorkshireman" on the Dincaster to Belisha Beacon portion. No. 1295 had the peculiar habit of shredding its valves at high speed

which usually resulted in bits of cast iron flying in all directions. This happened on numerous occasions, so much so, that the train earned the nickname "The Schrapnel Express". Fortune later smiled on "Conundrum" for it was rescued some years ago from the scrapyard of the Barry Bros. Woodum, and was purchased and restored by the well known Primrose Railway of Shuffle Park, Sussex, who delight in running odd types of steam engines and odd types of coaches on even days of the week.

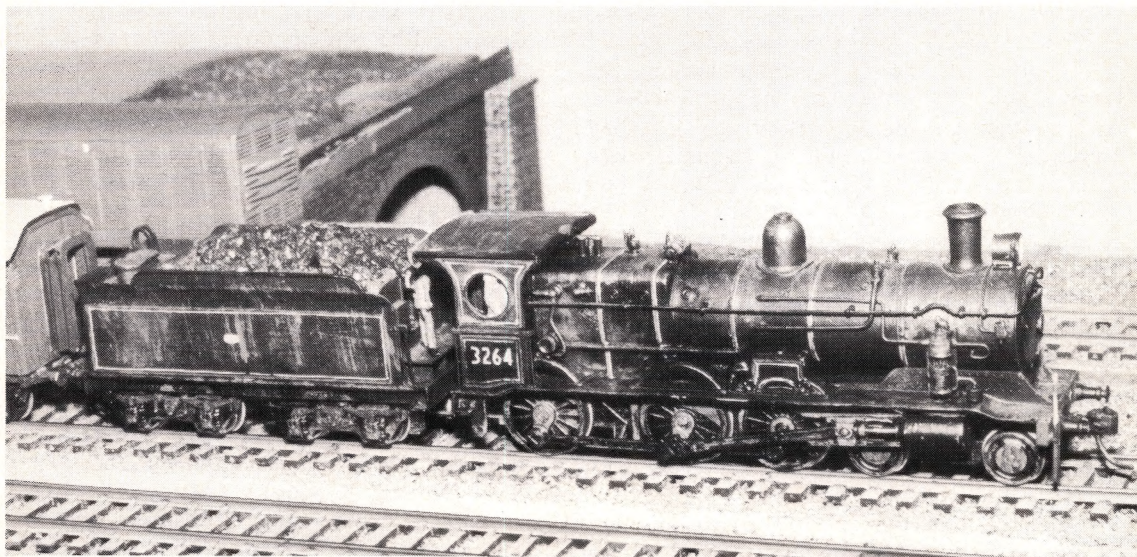
Perhaps the oddest fate to befall a member of the Double Dutches was No 1066 "Harold" which spent its early days on the more southerly lines of the company. When the First World War kicked off, the War Office started looking for engines to use pulling troop trains on the Continent. A department was established for this very purpose but had to be given a phony code name to fool the enemy. Thus the Railway Operatic Corps was born, and 1066 was impressed into Government service and shipped to France. Some trouble was encountered in using it there, due to the fact that in England it had been designed to run on Cornish Pasties, foot length variety, but the French had nothing similar, but 3 metre bread sticks delivered in 10 year old hogsheads. The problem was resolved by the R.O.C. burning the hogsheads and dumping the breadsticks.

In 1917 the R.O.C. having no further use for 1066, sold it to the famous Swiss Blitzensparken line, who fitted pantograph gear to the cab roof, which provided electric lights for the crew. In 1928 it was sold to the Indian Maharaja of Sockur, who used it on his private railway line for transporting drinks from the kitchen to the dining hall during banquets (since he claimed it faster than using elephants and more fun besides). "Harold" was, alas, destroyed one night in 1932 when the Maharajah got stoned and ran through some open points winding up in his swimming pool, later renamed the Indian Ocean.



A scene at Bullinga on the Hurstville Model Railway Club's HO layout at the 1974 Sydney Exhibition.

Photo - Alan Templeman.

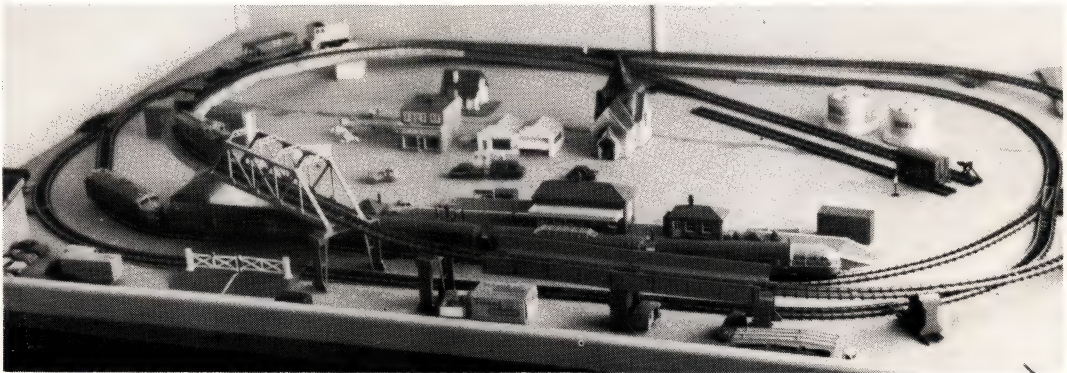


A brass HO 32 class very nicely painted and weathered by Kevin Brown, note the curtain at the cab window and the fireman on the footplate. This loco even has a glowing firebox when in motion.

Photo - Alan Templeman.

THE LAMOUR FAMILY LAYOUT

Story & photos by J. Parker.



Most model railways are built up over a long period, and this one is no exception, construction having started in 1965. The history of the layout goes back further than this though, right right back to 1959 when the Larmours built their first layout on a six feet by four feet board. The photo shows this as it was in 1961. Nearly all the structures shown in this photograph have been incorporated into the present layout, and all except the oil tanks and church can be seen in the later photos. (No prizes are offered for the first to pick them out).

The present layout is housed in a twenty by ten foot shed, specially built for the purpose. There are 350 feet of Peco 'HO' track and 70 Shinohara points. Provision has been made for both point to point and continuous running. There is a main terminal

station, three passing stations, a main marshalling yard, a coal transhipment point with a short Hon2½ branch to a mining town. Under construction is a branch to a port and wharf area.

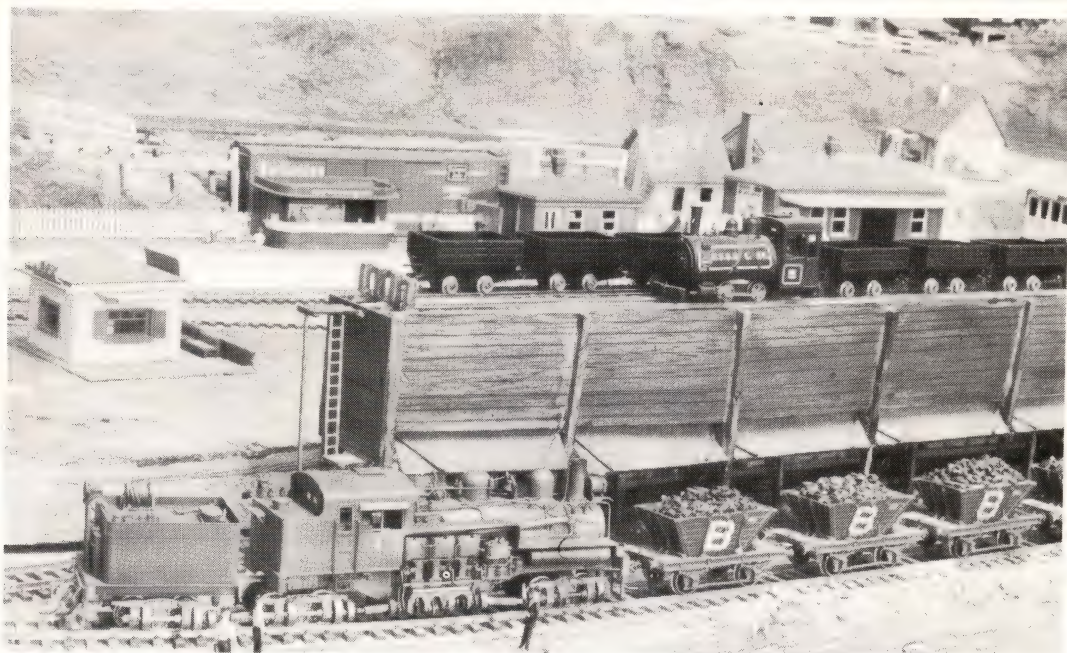
Rolling stock is a happy mixture of N.S.W., British, and American types. This has been built up over the years as time, money, (and visits to AMRA auctions), permitted. Lately though, models of N.S.W. stock have shown a growing influence.

Scenic features include Bluff Rock, where the views, the restaurant, and the old watch tower make this a tourist mecca, and the curved viaduct over the Markham valley. Graham did the engineering for this viaduct, no mean feat as the curve greatly complicated the design of the arches.



Reads Hill station and freight depot,
with the main yard in the foreground.
Phillip Larmour made the paling fence,

and a corner of Mark's diesel shed can
be seen.



Pacific coast Shay and N.S.W.R. four wheel coal hoppers. This coal loader is the transhipment point for the Black

& Orefull mine. Background shows Bluff Rock Station, with a tourist bus leaving for Bluff Rock Lookout.



Black & Orefull mine township. HO $2\frac{1}{2}$ mine track, with empty hoppers

about to be drawn under the loader.



Athern Pacific shunts cars for the 7.55 a.m.local passenger from Markham,

and a Hudson draws the Intercapital Daylight onto the viaduct.



Markham East signal box.

Fruit train leaving tunnel under Reads Hill.



Markham Station. Two car Budd set early morning workers special is leaving south bound.



Interstate freight approaching Reads Hill Station.

In the background is the e



See the many small details which go to complete the scene.
Welcome to Markham Station.

Repair and maintenance of loco transmissions

By I.M. Laszlo.

From time to time all of us have had troubles with loco transmissions and their maintenance. The purpose of this article is to assist in home repairs of loco transmissions, or, if possible, to help you to understand what it is all about.

Loco transmissions in commercial models fall into three general classifications, although there are some other weird and wonderful solutions such as fixed rotors and oscillating magnets, miniature linear motors, and so on. The three basic kinds are:

1. Transmission by rubber band from the motor shaft to the axle.
2. Worm and worm gear.
3. Involute gears - side gear wheels without any worm.

1. Transmission by rubber band.

This is a simple belt type transmission, similar to the overhead belting still to be found in some factories. The rubber is not ordinary rubber, and substitution with ordinary rubber bands results in a very short life. The correct substitute is a silicone rubber band, and the simplest and most satisfactory substitute is the traction tyres which are put on some continental locomotives. In fact, the traction tyre (silicone rubber) is exactly the same material as is used in this type of transmission. Ordinary rubber perishes, but silicone rubber is not affected by humidity, oils, or greases.

2. Transmission by worm & worm wheel.

The majority of locomotives in our hobby are of this type. It is not an ideal method of transmission, but it is cheap to manufacture and relatively easy to replace. If your worm is gone, and you have no replacement at hand, here is help. Most worms

are either 18 TPI or 20 TPI threads. The 20 TPI predominates, it being used by such varying firms as Triang-Hornby and Lilliput as well as many others. The main reason seems to be that it is equally at home in Imperial and in Metric measures. In Metric the 20 TPI is very close to Module 0.4 and the two are interchangeable. All that you need to replace a worm is a button die (20 TPI) some plastic rod, and access to a lathe to counterbore the threaded rod to suit your motor shaft. $\frac{1}{4}$ " dia. nylon rod is available at most industrial plastics suppliers in yard lengths. **WARNING.** Nylon is of many kinds, but best avoid it. Use good stuff such as Delrin which is dynamically stable and does not absorb humidity from the atmosphere. A steel rod under and inside a nylon worm can be rusted over!

Now here is a neat and acceptable little trick. 20 TPI or 1.25mm thread is available in various diameters. If you use in replacement of a Triang worm a $\frac{1}{2}$ " UNF button die, then you will get twice the diameter and four times the weight on the same shaft, and that means that your worm becomes a flywheel. This gives storage of energy, slow starts and slow stops, long after you cut off the motor. Of course the mounting of the motor must be modified - it has to be higher, and adjustments must be made for internal space. There are other fascinating possibilities of improvement like lengthening the shaft and arranging an end bearing. Triang motors have too much vibration, and this can be avoided only by suspending the worm in a fashion that it bears but does not press on the worm wheel.

Worm wheels. Now there is a chance here owing to the techniques developed by the N scale manufacturers. Most,

worm gears were based on 20 TPI worms, and in some rare cases nowadays 18 TPI. To be quite precise, these never were Imperial transmission types even if made in the UK or USA. 20 TPI is 0.5 module and it is a metric pitch (1.57mm between teeth) and 18 TPI is 0.4 module (1.27mm between teeth) and it is also a metric pitch. How come that these were used? A little digression: The usual worm wheel and worm pitches used in Imperial system countries are based on the dimetrical calculations of a circle, while in Metric countries they were using the $\text{Pi} - 3.14$. Half a Pi (0.5) is half a module, the module 1.0 is equal to Pi . This was used almost since the French Revolution in Continental Europe for fine instrumentation work. It is often used from 0.2 module to 1.0 module. 1.0 module in the form of a worm is nothing else but $\frac{1}{4}$ " Whitworth, or O BA (which is slightly less in diameter) or for 6mm by 1mm thread. Therefore these three common and commonly used threads can sometimes be intermixed although they are different in a slight degree. $\frac{1}{4}$ " is 6.3mm instead of 6mm, which is not only 6mm but O BA. The pressure angles, the angle of the thread away from the vertical is different. Metric is 60° , and so are American threads, BA is 47.5° , and Whitworth is 55° . They should not work together, but they do because manufacturing tolerances are not what precision tolerances are, and the pitch is the same although the cross sections of each thread are different.

To sum up, you can substitute worms, you can change them for a bigger size if you want a flywheel effect, and you can cut your own worms with a button die if you establish the right TPI. This is easy, take a bolt $\frac{1}{4}$ " Whitworth or O BA or 6mm by 1mm and compare it with your old worn out worms. If the worm is 20 TPI all of these should match. The worm you cut with the button die is solid, and it needs to be centred in a chuck and counterbored to be a press fit on the shaft.

N gauge manufacturers came to make the same 20 TPI worms in a smaller diameter. These will have to be thread cut on a lathe as there is no 4mm by 1mm button die, nor is there a $5/32$ " button die with 20 TPI. If you are bold and brave you will find that some wood screw and coach screw threads are of the right pitch and the right diameter. You had better match these as they are not usually uniform. The crowns of the threads are too sharp and you will have to counterbore them.

However there is one aspect beyond these points. N scale manufacturers often do not make a worm gear as such, but take the next bigger module, and use that for a worm gear - that is a common spur gear is used. The mechanics are quite simple and reasonable. Using a module 0.4 (or 20 TPI) worm to drive a module 0.5 (or 18 TPI) spur gear gives you a drive, as these coarser spur gears (not worm gears) have enough clearance for the worm thread.

Multi start worms will have to be cut on a lathe. My suggestion and advice is not to use them. They only make really fast locos.

Involute gears-spur gear or sidewinder transmission.

These are more common nowadays than they were ten years ago. They have immense advantages partly because of the nature of involute or spur gears. These are usually coarse and have built in slack. If the centres are correctly made you can get a very smooth running, non locking mechanism. The most commonly used involute gears are module 0.5. Fleischmann, Triang-Hornby ring field tenders, Trix (not always), Lilliput, Kleinbahn, and I think Lifelike, Rivarossi and Tyco all use 0.5 module. Fleischmann is the best known, and the reason is that it is so reliable owing to its spur gear transmission.

Module 0.4 spur gears are used in most N scale locos, what is left of TT scale, and Marklin together with some of the German Trix HO locos. 0.4 spur gears give finer control as there are

more teeth on the same diameter than 0.5 module, but for some reason they are less prevalent.

You can replace these at times by old clock gears, but is not always easy as they are often too thin. Otherwise if you cannot get replacements you are in trouble.

If you have a lathe, I have worked out, and use, a method of making my own. It is not a pleasant task and I would rather get one if I can. The method I have worked out does hobbing by using taps in the lathe. If the Editor is interested I may write a short illustrated article on it, but it is more in the line of Model Engin-

eering than Model Railways. However it can be done.

All the best, and if you have any problems let me know through the Editor. In most cases you can solve your problems. There are very few dud locos that cannot be patched up at home. However a second wife always helps - a second wife, you fellow bigamists, is just another name for a lathe.

(We certainly would be interested in a follow up article. Technical articles are always in great demand.)

Editor.

REPRIEVE FOR A STEAM LOCOMOTIVE.

From the West Australian 7/9/76.

A steam locomotive which was due for the scrap-heap will begin a new career on Sunday as a tourist attraction in the South West. The Westrail W-class mountain steam locomotive will take 500 people on an outing from Pinjarra to Dwellingup.

All seats were taken three days after the excursion was advertised three weeks ago. Another outing will be held on October 24th to cater for people who booked too late for the inaugural trip.

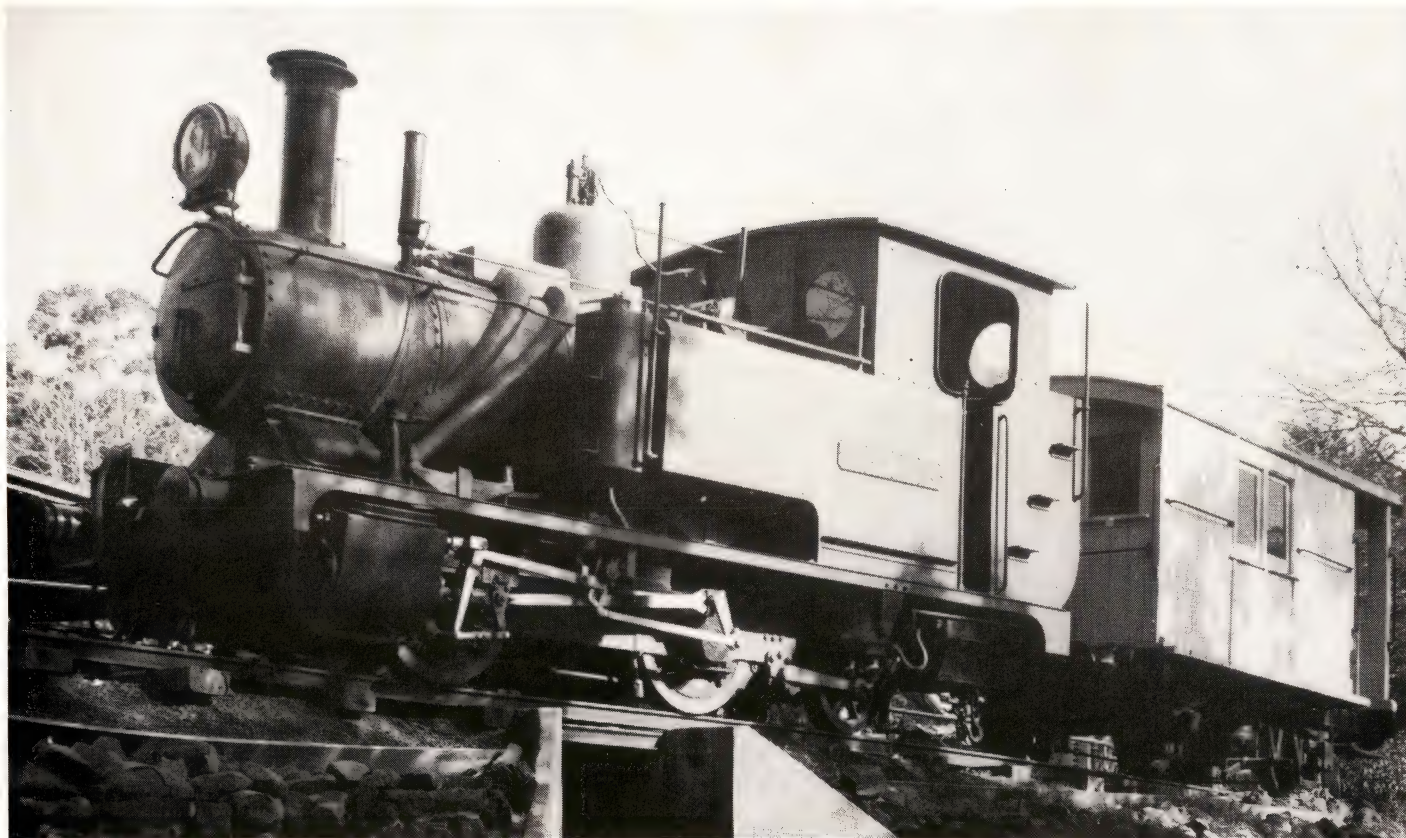
The project is the work of the Pinjarra and Halls Railway Preservation Society. It bought the locomotive for \$6,500 and recently spent \$1200 getting it into working order.

The president, Mr. John Arnold, said yesterday that a diesel train would leave the Perth central station at 9.45 a.m. on Sunday to take the passengers to Pinjarra.

After the Minister for Transport, Mr. O Connor, had handed over the refurbished engine to the society's patron Sir Paul Hasluck, it would replace the diesel and take the carriages to Dwellingup. The Dwellingup community had organized a picnic and forest excursions to celebrate the occasion.

The Pinjarra-Dwellingup line was still used for timber trains about twice a week. Once, it extended to Boddington and Narrogin.

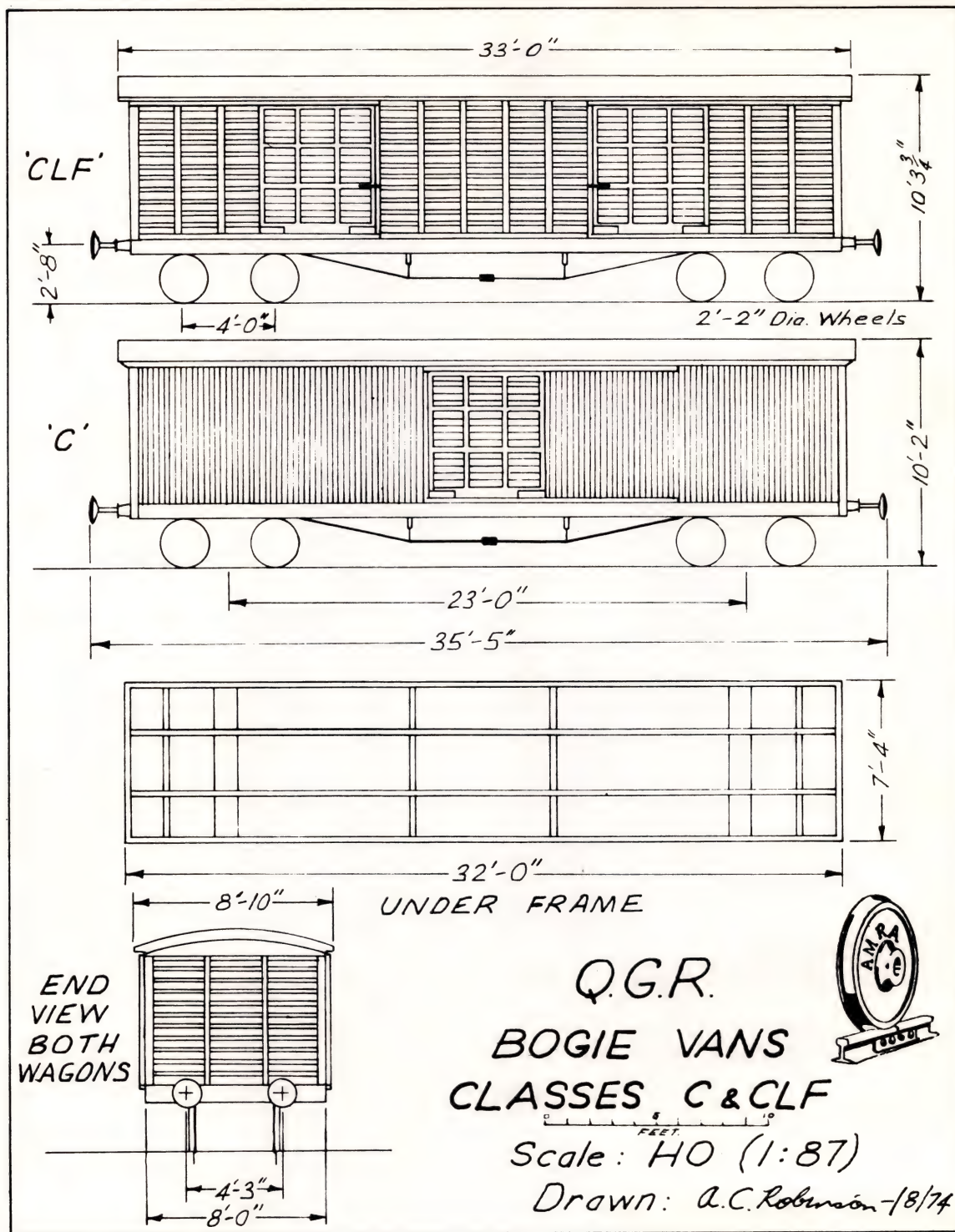
Mr. Arnold said the society, whose membership had grown from four to 220 in two years, had the option on two other locomotives at Collie. It had put a plan before Cabinet showing the feasibility of a scheme using the resources of railway preservation societies in other areas.

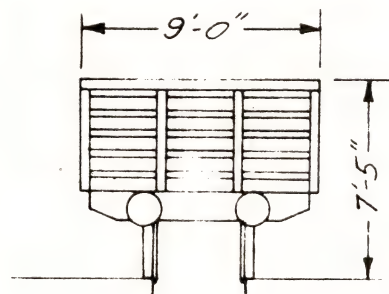
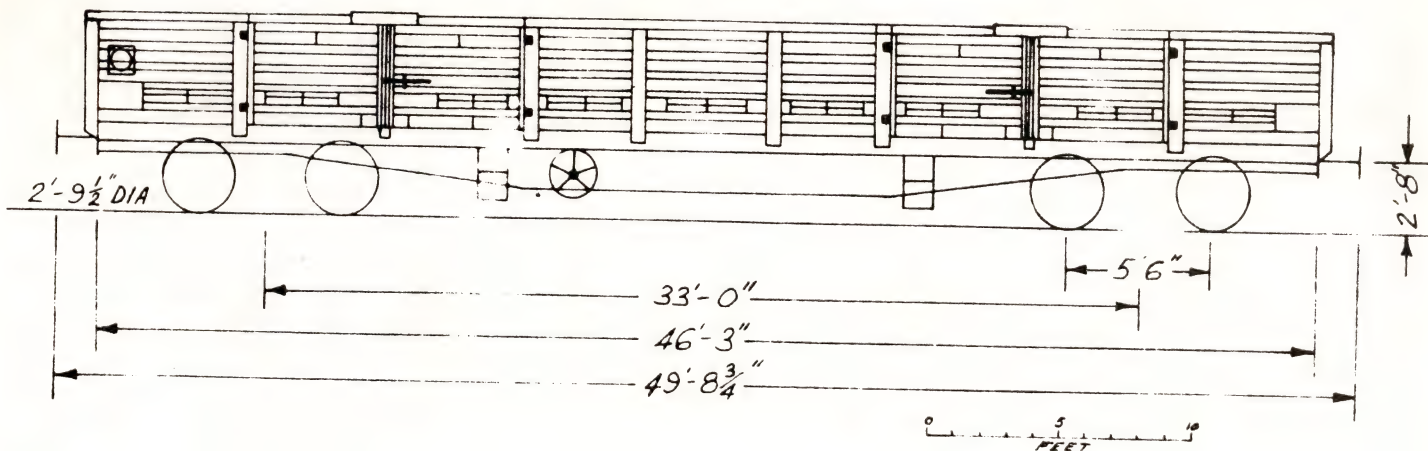


This 27 ton 0-4-2T was built by North British Locomotive Co. in 1938. It was the last of 5 and worked the line between Queenstown and Regatta Point (Strahan) Tasmania with grades of 1 in 16 and 1 in 20 over $4\frac{1}{2}$ miles. The cog wheel rack enabled this loco to haul 60-75 tons up these grades.

Mt. Lyell Mining and Railway Company donated this locomotive to the Victorian Division of the A.R.H.S. who have permanently loaned it to Puffing Billy Preservation Society since 1968, and can be seen at the Menzies Creek Museum.

Photo by John McNabb.





QR
HO WAGON
Scale: HO (1:87)
Drawn: A.C. Robinson - 1/8/78

The Whistling Cod

Jim Fitzgerald. California.

I have read with interest Anglethorpe Dickering's account of Sir Greely Dimley's locomotive designs in the Sept 1975 BRMNA Journal. I was specially fascinated by the 0-2-0 "Whistling Cod" locomotive. This fills a gap in my knowledge of the German engine builder, Herr Gustaf Eing.

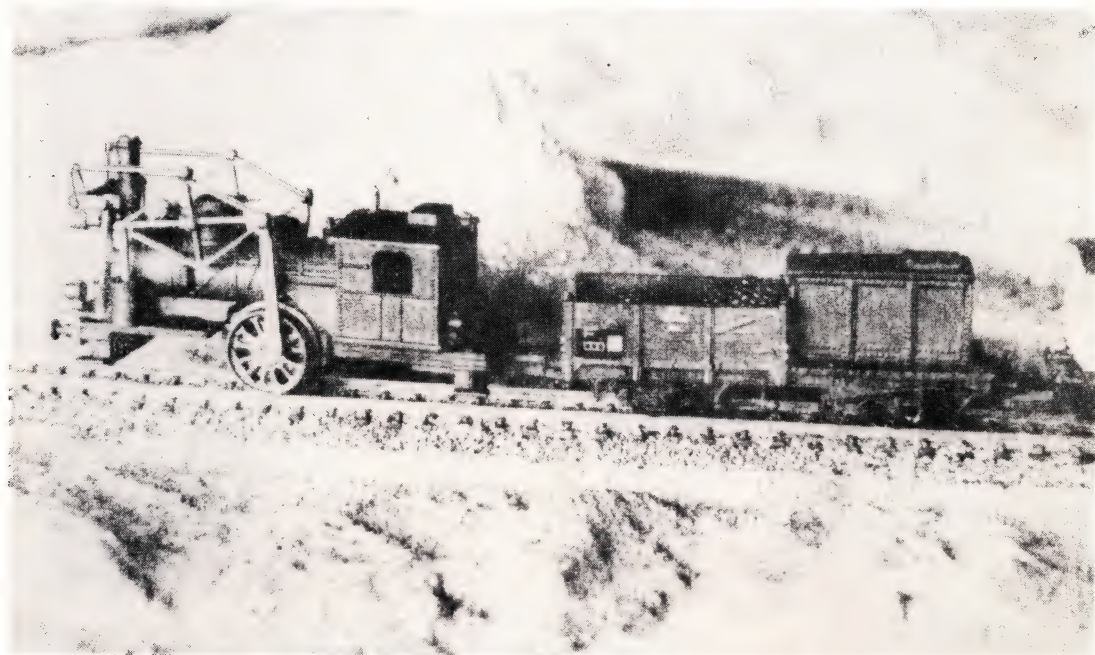
It is known that Herr Eing visited England in 1853, and I now realise he must have seen the "Whistling Cod" at that time. For in 1854 Herr Eing also built an 0-2-0. It was cleverly balanced so that the skids used so disastrously by Sir Greely were not needed.

As can be seen in my N scale model (see photo) of Herr Eing's 0-2-0, he was also influenced by the "walking beams" used on paddle-wheel steamboats of his time.

The valve motion is also of interest. The upper arm from the walking beam is connected through concentric shafts to the valve on the opposite side. This gives the 90° offset needed for proper valve action. Reversing was a problem never solved, however, and this limited the usefulness of the otherwise brilliant design.

The N scale model completed over 100 scale miles on the 12' by 72' NTRAK modular layout at the 1974 NMRA convention in San Diego. At the Belmon Shores Nscale meet in Signal Hill, Cal. it ran continuously for seven hours.

A tribute to two pioneer locomotive designers, Sir Greely Dimley and Herr Gustav Eing.





3830 heads for Wollongong with the Down South Coast Daylight Express. A scene on the HO Layout of Alan Templeman.
Photo: A. Templeman.

A COMPROMISE

By W.J. Hughes.

The Gladstone Model Railway Club often exhibits at fetes and charity fairs. Easter is our big moment. The exhibition lasts four days over the Easter weekend. My observations of public response at these exhibitions seem to concur with Eric Watson's conception of Group A in Journal 121.

It seems that all the public wants is to see trains running continuously. However there may be a compromise. The trick is to ensure that there is always plenty of movement. That is, at no time should ALL trains be stopped during exhibition. The more movement the greater the public interest.

During the Easter 1975 exhibition of the G.M.R.C. the large club layout was on display in a marquee at Auckland Inlet. The layout features a single line which can run in either direction and a double track section which runs into a single track section down the spiral (or up the spiral depending on direction) at one end of the dog-bone. This section is automatic CTC operated. The first train to claim the section automatically causes the opposing train to stop at a predetermined place. This latter train cannot proceed until the former clears the section. Now here we have the bones of some prototype operation. Trains are stopping, but not all trains. This CTC section created a lot of interest, especially since the two trains oppose one another as well as use the same section. It is related by some of the members who were on duty at the time that a couple of lads watched this section for four hours to see if there would be a head on collision. Alas, in vain they watched.

Perhaps a special exhibition time table could be made up to ensure that there is always plenty of movement. The limits would be the size and type of layout. Also the number of trains

that could be operated. Perhaps to the purist it might seem unprototypical to have so much action. To have one train ready to depart immediately on the arrival of another, and at no time have a lull. We are trying to show that a compromise can be made with a little give and take. Speaking of unprototypical things, it is my pleasure to drive trains for the Queensland Railways as an occupation. Being a driver I witness many things in railway operation that the purist would hail as unprototypical. May be in the future it might be possible to relate some of these incidents.

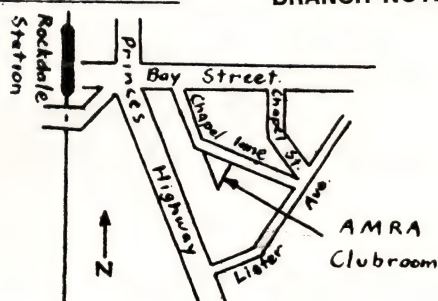
Another way to enhance a layout for exhibition purposes is to have many trackside and scenic bits that really work. A stream that flows, a wind mill that works, a real water fall, a house that has smoke coming from its chimney, a working sawmill, the list of possibilities is endless. Ah, I can hear the purists protest from here. "Real water doesn't look real on a model layout." "It just doesn't look right." So what! Remember give and take a little. We may even hear one of the group for continuous running ask "Hey mister, what did that one stop for?" So what, little did he know that two trains cannot occupy the one section at the same time.

All right, what does all this prove? You cannot please everybody all the time. But you can certainly have a good go at it. These are my thoughts on how to bring some satisfaction to both the group for continuous running and those for prototype operation. It is hoped that some of you have been inspired to think differently when it comes to exhibitions. To consider both prototype and continuous running, or should I say continuity of movement. It is the movement that attracts the public.

BRANCH NOTES

NEW SOUTH WALES.

BRANCH NOTES



NEW SOUTH WALES.

The Annual General Meeting of the N.S.W. Branch was held on Saturday 5th February at the Rockdale Clubrooms.

The following Committee of Management was elected:

President	G. Bray
Vice President	Ray Pilgrim
Secretary	T. Parkes
Treasurer	J. Skilton
Reporter	J. Parker
Committeemen	K. Cross (Librarian)
	J. Dunn (Layouts)
	D. Meredith (Organiser)
	G. Larmour (Organiser)
	F. Potts (Builder)
	N. Thomas (Builder)

This is basically the same as last year, with only one or two changes. In view of the progress made in 1976 this is probably a good thing and when you are on a good thing stick to it.

Ray Pilgrim has moved into the Vice President's chair. Ray and Christine Pilgrim have just moved into their new home, and we are lucky that they can spare the time. Kevin Cross, who was kind enough to organise the library for us during most of 1976, is now officially a committee member.

In the list of committeemen, I have indicated some of the duties that fall to each member. Kevin Cross we have already mentioned, and at any time you are likely to find John Dunn up to his

elbows in plaster and sawdust as he works on the layouts. Frank Potts and Norm Thomas are our expert building tradesmen, with skills in things like welding and carpentry. Denis Meredith has been our Social Organiser, and I expect that I have no need to introduce you to Graham Larmour. Past President Graham has organised so many exhibitions that he now feels in urgent need of a break, and is about to depart on an extended overseas holiday with his wife June. Happy landings, Graham and June.

With one exception all of the Committee are married men, and they range in age from early twenties to about fifty.

About half of the Committee have home layouts, while the others have just completed buildings in which they intend to build layouts.

Our President, George Bray, is a nearly two metre tall tower of strength. Tom Parkes, Secretary, is a conscientious worker and very competent with a pen.

Treasurer, John Skilton, has a forceful personality, and carries out negotiations for things like Insurance and Council permission to erect buildings. John's careful money managing has saved us many a cent.

Then there is myself, Jack Parker Branch Reporter. Over the years my efforts in "Pop Valve" have landed me in more hot water than a ton of raw prawns, but they still trust me to write these reports. They must be mad!

It is a good Committee, with a range of talents capable of handling all the Branch's aspirations, and it has another very important attribute - all the committeemen get on well together. There are no clashing personalities, and no time is wasted in fruitless arguing.

This then is your Committee. We

hope you, the members, will support us by attending meetings and other activities that we organise on your behalf.

The Clubrooms at Rockdale have been improved as finance and volunteer labour allowed, and as time goes on they are getting much more convenient and more comfortable to use. Unfortunately our attendance figures do not warrant more than the four meetings a month we have at present.

The agenda for the next three months is as follows:

MAY.

- Sat. 7th Buffet & film night.
- Fri. 13th Modelling clinic.
- Sat. 21st Visit to P.T.C. (see notice board for details).
- Fri. 27th Layout operation (N.S.W. prototype only).

JUNE.

- Sat. 4th Auction, have those items in before 2.00 p.m.
- Fri. 10th Modelling clinic. Photographing models by Jack Parker. Bring your camera.
- Sat. 18th Layout operation.
- Fri. 24th Layout operation.

JULY.

- Sat. 2nd Modelling structures by Alan Peterson.
- Fri. 8th Modelling clinic.
- Sat. 16th Layout operation.
- Fri. 22nd Slide & historical talk by Noel Thorpe.

Jack Parker.
Branch Reporter.

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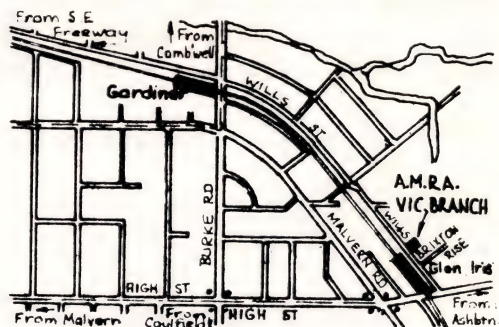
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VICTORIAN

BRANCH NOTES



VICTORIA.

General meetings are held on the second Thursday each month commencing at 8 p.m. at the clubrooms, 92 Wills Street, Glen Iris. The clubrooms are open from 7.30 p.m. on these nights for operation of your H0 or N gauge trains on the club layouts. Working bees with operation on the club layouts are held on Wednesday nights with the exception of the Wednesday night before the general meeting.

The 1977 Exhibition promises to be our best ever, with the standard of exhibits higher, and our own H0 display layout presenting a completely revamped appearance due to the efforts of Frank Sherrin and his volunteers. Our Exhibition Organiser hopes to have a full run down on the exhibits in the next Journal.

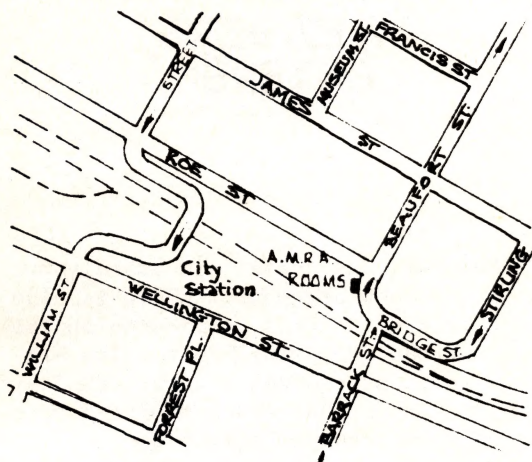
Working Bees continue to be poorly attended, and if there are any members who have constructive ideas for making working bees more attractive, or who would like to be a member of the property sub-committee, would they please either let me know or answer the call when volunteers are requested at the Annual General Meeting.

The Agenda for the next three months is as follows:

- May 12th General meeting. Film night. Competition. Photo tank car.
- June 9th General meeting. Annual Auction. Competition. Model of a tank car.
- July 14th To be arranged.

John Harry Branch Sec.

WESTERN AUSTRALIAN BRANCH NOTES



Meetings are held at No. 1 Beaufort Street, on the dates shown on the program.

Visitors and prospective members of AMRA are always welcome at any of our meetings. Any one interested can phone or write to the Secretary for further information.

Mrs. Margaret Eagles, phone 60 5005.
26 Swan Road, High Wycombe, W.A.6057.



"Be it ever so humble, there's no place like home." This well known quotation aptly describes the W.A. branch's clubrooms at No.1 Beaufort St. The branch leases from Westrail, the small two story building with the advertising signs adorning it. The building, of which we have sole use, consists of four rooms, two upstairs and two downstairs, plus a small kitchen and two small verandahs.

As can be seen from the buildings in the background, the rooms are right in the centre of Perth, and located adjacent to the Perth Central Railway Station.

Recently Westrail vacated the single story building next door to the clubrooms, and we have written to them regarding leasing it in addition to our present building, so that we may have room for all our activities.

The branch has remained active over the holiday period, and during this time we have conducted three major activities. The first was that we exhibited our N gauge layout at a city department store for the first week in January.

A lot of favourable comment was passed about the layout, despite a few problems with the locos specially purchased for this event. Our thanks to those members who gave up their time to man the layout.

Secondly, under the guidance of Bruce Norton, the branch ran two clinics on transistor controllers. The end result being six very efficient controllers for the branch layouts. Our thanks to Bruce Norton, who not only put in a lot of time and effort organising the clinics, but also supplied the expertise as well.

Thirdly, Ross Hurley has conducted a couple of clinics on tree making so we can afforest the branch layouts. Ross is a past master on the construction of gum trees, and the members have appreciated him coming along and demonstrating his techniques.

As W.A. members are aware, we have expanded our own Newsletter, changed its format, and given it what we think is an appropriate name - "The Branch Line". The Branch Line will appear at regular intervals and contain the program of Branch activities plus items of news and information about the branch for the information of members. The function of The Branch Line is to keep the members informed of branch activities, and in no way aspires to become a magazine and compete with Journal for articles.

Graham Watson.
Branch Reporter.



FOR
READER'S
LETTERS

The Editor,
AMRA Journal.
Dear Sir,

Just a brief line to say how dreadfully sorry I was to hear of the tragic railway accident at Sydney yesterday. I was in London at the time and first read of it in the early evening papers.

Since then we have seen some ABC television film, what a terrible mess it all looks, and how tragic for the bridge to have collapsed after the accident, when as we understand it, little injury had been caused in the particular coach under the bridge, until the collapse.

I do, sincerely hope, that none of your relatives, friends or associates in A.M.R.A. were involved.

P.J. Bramley
Swansea, U.K.

The Editor,
AMRA Journal.
Dear Sir,

It was with great concern that I read Peter Betts' criticism of the manner in which his first article on Wheel Standards was presented in Journal 120. First of all, let me say that I can understand Peter's disappointment, after spending a lot of time and thought in producing a very technical article, only to find that, upon the article appearing in print, errors and omissions had crept into the article as printed. We would like to take this opportunity to apologise to Peter for these errors. As a matter of fact, we would have gladly printed corrections where necessary, together with apologies, had the matter been brought directly to our attention, before Peter's letter was published in "Pop Valve."

However, as there are usually two sides to each argument, there is also another side to this remission on the part of the Editorial Staff. The article in question was a very technical one, so much so that Peter admitted that he expected few members to be able to follow it in every detail. Apparently "yours truly" was not one of those chosen few, as I really thought that the article, as printed, appeared to make sense. To complicate the problem a little more, some of Peter's diagrams had paragraphs of explanations under them, which posed quite a problem when one considers the amount of vertical column space that each of these diagrams, together with the attendant explanations took up. Peter, I would suggest, overlooked the fact that whereas his original was on foolscap sheets, our magazine is on quarto sheets, which meant that two diagrams just would not fit physically in a vertical column.

After much cogitation and head scratching, I devised the plan of separating the main text from the diagrams (and the attendant explanations) with a black line. Apparently, this made the article into an obituary notice instead of the very technical article which Peter intended.

Once again, Peter, please accept my sincere apologies. Incidentally should any member, upon submitting an article etc. for publication in Journal, have definite ideas as to how such material should be presented, please do not hesitate to present these ideas, along with the material, when it is submitted for publication.

In conclusion, I would like to point out that any errors which appear in Journal make their appearance accidentally - they are not there as part of any design of the Editorial Staff, so please bear with us, as we are all "amateurs" striving to do as good a job as we possibly can in this hard cruel publishing world.

Maurie McKinnon.
Publisher.

NEWS FROM OTHER CLUBS.

PROSPECT MODEL RAILWAY CLUB.

The Club is continuing work on the permanent extensions to the club's 24' by 8' HO gauge exhibition layout. We hope that it will be operational by the end of the year.

We model mainly U.S. prototype and felt that a 30' by 30' layout would give us greater scope for running trains of reasonable length without dwarfing the layout. We have adopted the name Prospect and Western for the layout, and we have club colour schemes for the locos and rolling stock.

Future club outings are to Thirlmere on March 6th, and Lithgow Zig Zag on May 1st. The club meets on the second and fourth Saturdays each month, and new members and visitors are welcome. For further information phone Bob Payk on 623 1855 (Sydney).

Our 1977 Exhibition will be on Queens Birthday Weekend, June 11th to 13th Saturday 9 a.m. to 6 p.m.; Sunday 10 a.m. to 6 p.m.; Monday 9 a.m. to 5 p.m.; at the Senior Citizens Centre, Kildare Street, Blacktown.

The display will include layouts in HO, N, and Z scales, a U-Drive and a used equipment stall. Light refreshments will be available. Admission is 50¢ adults; and 20¢ for children. For information phone Bob Payk 623 1855.

Phil McDonnell.
Hon. Secretary.

From Sunday Times 5/9/76.

REMOTE CONTROL TRAINS.

Most of W.A.'s rail services will be controlled from Midland from Friday when the signal control centre will be officially opened by the Minister for Transport, Mr. R.J. O'Connor.

The centre was planned eight years ago and has been introduced progressively since 1975. The centre will control train junctions in the city from Bellevue to Avon, Armadale to the Pinjarra alumina refinery, and from Forrestfield to Kwinana.

The centre is operated by remote control and needs only four people to supervise. It is the largest controlled rail system in Australia.

All metropolitan services, except south of the river, which will be introduced early next year, will be controlled from Midland.

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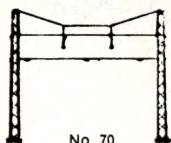
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